STATEMENT OF WORK FOR
REMEDIAL INVESTIGATION/FEASIBILITY STUDY OVERSIGHT (RS)
Fixed Rate Task Order
San Jacinto River Waste Pits Superfund Site, Harris County, Texas
August 20, 2015

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RAC II STATEMENT OF WORK FOR
REMEDIAL INVESTIGATION/FEASIBILITY STUDY OVERSIGHT (RS)
San Jacinto River Waste Pits Superfund Site, Harris County, Texas
EPA ID# TXN000606611
August 20, 2015

Contract No: EP-W-06-004
Task Order No:

Introduction

SITE DESCRIPTION AND HISTORY

The San Jacinto River Waste Pits site consists of a set of impoundments approximately 14 acres in size, built in the mid-1960s for disposal of paper mill wastes, and the surrounding areas containing sediments and soils potentially contaminated with the waste materials that had been disposed of in the impoundments. The set of impoundments is located on a 20-acre parcel on the western bank of the San Jacinto River, in Harris County, Texas, immediately north of the Interstate Highway 10 (I-10) Bridge over the San Jacinto River. In 1965, the impoundments north of I-10 were constructed by forming berms within the estuarine marsh, to the west of the main river channel. These impoundments at the Site were divided by a central berm running lengthwise (north to south) through the middle, and were connected with a drain line to allow flow of excess water (including rain water) from the impoundment located to the west of the central berm, into the impoundment located to the east of the central berm. The excess water collected in the impoundment located to the east of the central berm was pumped back into barges and taken off-Site.

In 1965 and 1966, pulp and paper mill wastes (both solid and liquid) were transported by barge from the Champion Paper Inc. paper mill in Pasadena, Texas and unloaded at the Site into the impoundments north of I-10 where the waste was stabilized and disposed. The Champion Paper mill used chlorine as a bleaching agent, and the wastes that were deposited in the impoundments are contaminated with polychlorinated dibenzo-p-dioxins and polychlorinated furans (dioxins and furans). Physical changes at the Site in the 1970s and 1980s, including regional subsidence of land in the area due to large scale groundwater extraction and sand mining within the river and marsh to the west of the impoundments, have resulted in partial submergence of the impoundments north of I-10 and exposure of the contents of the impoundments to surface waters. Samples of sediment in nearby waters indicate that dioxins and furans are present in nearby sediments at levels higher than levels in background areas.

The San Jacinto River drains an area of 3,900 square miles and supplies approximately 28 percent of the fresh water entering Galveston Bay. The mainstem of the San Jacinto River, downstream from the Lake Houston dam in northeastern Harris County, flows southeast for 28 miles to its mouth on Galveston Bay east of Houston. The Site is located in a hydrologically dynamic tidal section of the San Jacinto River. Freshwater, estuarine, and marine habitats are present in the vicinity of the Site.

Tropical weather systems can have tremendous impacts on regional precipitation and hydrology along the Gulf Coast. Hurricane season runs from June 1 to November 30. Between 1851 and 2004, 25 hurricanes have made landfall along the north Texas Gulf Coast, seven of which were major (Category 3 to 5) storms.

Residential, commercial, industrial, and other land use activities occur in the vicinity of the Site and in the surrounding area. Residential development on the eastern bank of the river is present within 0.5 mile of the Site. Estuarine riparian vegetation lines the upland area that runs parallel to I-10 and the uplands west of the impoundments.

A time-critical removal action (TCRA) involved capping and isolation of the wastes in the impoundments north of I-10, with related construction completed in July 2011. The purpose of the TCRA was to prevent direct contact with the waste material and to stop erosion and stabilize the entire area within the original 1966 perimeter of the impoundments north of I-10 until a final remedy is implemented. The TCRA including the following:

- Construction of a security fence on the uplands to prevent unauthorized access to the TCRA Site.
- Placement of "Danger" signs indicating that this is the location of a Superfund site.
- Installation of a stabilizing geotextile barrier over the eastern cell.
- Installation of a low-permeability geomembrane and geotextile barrier in the western cell.

- Installation of armor cover of varying sizes and thicknesses.

PURPOSE

The Environmental Protection Agency (EPA) is currently considering a draft Feasibility Study that was prepared by the Potentially Responsible Parties (PRPs) for the Site. To help inform this consideration, the EPA has tasked the U.S. Army Corps of Engineers to provide an independent assessment of the Site and the relative merits of various remedial action alternatives that may be applicable to the Site. The draft Corps of Engineers report is expected in August and will be finalized following review and comment by EPA and the partner agencies for the Site. These partner agencies include the Texas Commission on Environmental Quality, Harris County, and the Port of Houston Authority. The EPA will also task the PRPs to perform future sampling to further define and assess any impacts the Site may have on the surface water, sediment, and ground water in the area.

The purpose of this fixed rate task order is to conduct oversight of the PRPs RI/FS at the San Jacinto River Waste Pits Superfund Site to select a remedy to eliminate, reduce, or control risks to human health and the environment. Specifically, the RI/FS oversight is to obtain EPA contractor (the contractor) support for the oversight of the PRP conducted RI/FS activities, which may include review of PRP work plans, oversight of PRP field investigations (split samples, etc.), and review of PRP deliverables (FS report, etc.); and obtain support for community relations functions throughout the RI/FS and decision making process. This community assistance will include the support for EPA regarding preparation of draft responses to public comments regarding the future proposed plan for the Site. It is anticipated that a large number of comments will be received based on the large number of letters that EPA is currently receiving (over 500 to date) regarding the community's preferences for the various potential remedial alternatives for the Site.

This SOW sets forth the framework and requirements for this effort. The goal is to develop the minimum amount of data necessary to support the selection of an approach for site remediation and then to use this data to result in a well-supported Record of Decision (ROD). The estimated completion date for this task order is May 21, 2016, for all technical and close-out work.

GENERAL REQUIREMENTS

This is a fixed rate task order that requires the contractor to provide oversight of the RI/FS. Successful RI/FS oversight is accomplished by observing and documenting that the PRP has or has not complied with all applicable laws, regulations, and requirements, and has or has not met all performance standards specified in the settlement agreement. Furnish all necessary and appropriate personnel, materials, and services needed for, or incidental to, performing the oversight of the RI/FS in accordance with this SOW.

This SOW and accompanying work breakdown structure (WBS) (Attachment 2) is provided as a format for the contractor to structure its proposed approach and cost estimate. The WBS is used in the cost estimate preparation and technical and cost tracking and reporting under this task order.

In conducting the fixed rate task order, EPA expects the contractor to propose the most appropriate and cost-effective procedures and methodologies using accepted engineering practices and controls. Throughout the performance of this task order, EPA expects the contractor to be responsible for performing services and providing products at the lowest reasonable cost. If the contractor fails to meet the requirements within the negotiated costs, the government may elect to provide the contractor with additional funds to complete the task order without providing any additional fee. If there are changes to the SOW by the government, the government will issue a formal amendment to the SOW and negotiate the cost of the amendment with the contractor to form a new cost estimate.

A summary of the potential major deliverables and proposed schedule for submittals is in Attachment 1. This summary and schedule can be used as the basis for the contractor's proposed deliverables and schedules included in the work plan. Submit the major deliverables using the Transmittal of Documents for Acceptance by EPA Form (Attachment 4). The EPA Task Order Manager (TOM) will track deliverables submitted by the contractor using the Transmittal Register (Attachment 5).

A list of primary guidance and reference material is attached (Attachment 3). In all cases, the contractor shall use the most recently issued guidance.

Communicate at least weekly with the Task Order Manager (TOM), either in face-to-face meetings or through conference calls. Document all decisions that are made in meetings and conversations with EPA. Forward this documentation to the TOM via the monthly progress report.

EPA will provide oversight of contractor activities throughout the RI/FS oversight. EPA review and approval of deliverables is a tool to assist this process and to satisfy, in part, EPA's responsibility to provide effective protection of public health, welfare, and the environment. EPA will review deliverables to assess the likelihood that the RI/FS will achieve its goals and that its performance and operations requirements have been met. Acceptance of deliverables by EPA does not relieve the RI/FS oversight contractor from responsibility for the adequacy of their deliverables or their professional responsibilities.

RECORD KEEPING REQUIREMENTS

Maintain all technical and financial records for the RI/FS oversight in accordance with the contract. At the completion of the task order, submit an official record of the RI/FS oversight in both compact disk and a hardcopy to the TOM. Provide the deliverables using electronic media.

USEPA PRIMARY CONTACTS

The USEPA primary contact for this work assignment is Mr. Gary Miller who is the Remedial Project Manager (RPM). He can be reached at (214) 665-8318 [FAX: (214)-665-6660]. His mailing address is U.S. EPA Region VI, Mailcode: 6SF-RA, 1445 Ross Avenue, Dallas, Texas 75202-2733; and his e-mail address is miller.garyg@epa.gov.

The EPA Project Officer (PO) is: Ms. Rena McClurg [(214) 665-8314; FAX (214) 665-6660; email: mcclurg.rena@epa.gov]. The EPA Contracting Officer (CO) is: Mr. Michael Pheeny [(214) 665-2798; FAX (214) 665-6660; email: pheeny.michael@epa.gov].

TASK ORDER COMPLETION DATE AND PROJECT CLOSEOUT

At the completion of the task order, perform all necessary project closeout activities as specified in the contract. These activities include closing out any subcontracts, indexing and consolidating project records and files as required above, and providing a technical and financial closeout report to EPA. The goal is to complete all technical activities and closeout activities for this task order by May 21, 2016, for all technical and close-out work.

RI/FS Oversight Work Planning

WORK PLAN WBS: 1.1

Prepare and submit a RI/FS oversight work plan that includes a detailed description of implementation activities, performance monitoring, and overall management strategy, including optimization, for the RI/FS oversight. Typical activities involved in preparing the work plan include, but are not limited to, the following:

- Contact EPA within five calendar days after receipt of the task order statement of work (SOW) to schedule the scoping meeting to be held at the U.S. EPA Region 6 office in Dallas, Texas, or via a conference call. Regional personnel will be available to meet with the contractor after the initial scoping meeting to discuss and clarify any issues the contractor may have regarding this project. Contact EPA to schedule this meeting before the proposed meeting date if the meeting or conference call is required.

- Conducting a site visit with the TOM during the RI/FS oversight planning phase to assist in developing an understanding of the site and any logistics.

- Preparing and submitting a final RI/FS oversight work plan within 30 calendar days after receipt of the SOW from EPA. The work plan shall include a detailed description of the technical approach for the RI/FS oversight activities. Specify the necessary procedures, inspections, deliverables, and schedules. Include a comprehensive implementation management schedule for completion of each major activity and submittal.

- Preparing the estimated cost to complete the task order, including subcontractor costs, for each element of the SOW; providing a breakdown of the cost by task and subtask levels, in accordance with the contract work breakdown structure (WBS).

- Negotiating and preparing a revised work plan, if the contractor fails to meet the Region's minimum standards. Note that EPA does not anticipate a need to re-negotiate with the contractor nor to require the contractor to revise the work plan. Contractor costs associated with the preparation of the revised work plan and cost estimate shall be paid by the government but shall not bear fee.

- Providing conflict of interest disclosure.

SITE-SPECIFIC PLANS WBS: 1.2

Prepare, update, and/or maintain plans, as necessary, for RI/FS oversight implementation in accordance with applicable guidance. Incorporate the plans and procedures received from any subcontractor(s) into the overall site plans. Should the contractor fail to meet the required standards in accordance with the appropriate legal, regulatory, and EPA guidance, prepare revised site-specific plans. (NOTE: In that event, contractor costs associated with the preparation of the revised site-specific plans shall be paid by EPA but shall not bear fee.) Typical plans include, but are not limited to, the following:

- Sampling and Analysis Plan (SAP) in accordance with 40 CFR 300.415(b)(4)(ii).

- Field Sampling Plan (FSP) in accordance with 40 CFR 300.415(b)(4)(ii).

- Quality Assurance Project Plan (QAPP) in accordance with *EPA Requirements for QA Project Plans* (QA/R-5). Office of Environmental Information. EPA/240/B-01/003, March 2001.

- Site-specific Health and Safety Plan (HSP) that specifies employee training, protective equipment, medical surveillance requirements, standard operating procedures, and a contingency plan in accordance with 29 CFR 1910.120(l)(1) and (l)(2). NOTE: The PRP HSP may be modified for use if appropriate.

POLLUTION LIABILITY INSURANCE WBS 1.3

Prepare and submit costs to the Contracting Officer for approval for task order-specific Pollution Liability Insurance, if the contractor plans to bill insurance premiums as a direct charge to the task order and there is no contract-wide Pollution Liability Insurance. (NOTE: Track and report all costs associated with this subtask separately and in accordance with the Reports of Work, Attachment B, of this contract.)

PROJECT INITIATION WBS: 1.4

Perform project initiation and support that will lead to the selection of a remedy that eliminates, reduces, or controls risks to human health and the environment. Typical activities include, but are not limited to, the following:

- Developing an EPA-approved laboratory quality assurance program that provides oversight of in-house and subcontracted laboratories through periodic performance evaluation sample analyses and/or on-site audits of operations and has a system of corrective actions to be used in cases where performance does not meet the standards of the program.

- Developing/reviewing qualifications of the laboratory for the given analytical requirements.

- Procuring, managing, and providing oversight of pool and team subcontracts for analytical services.
- Reviewing background documents when directed by EPA.
- Reviewing PRP Work Plan.
- Preparing Technical Memorandum and schedule for interface of Risk Assessment activities. Addressing data transfer from PRP; schedule contingencies.

Project Management and Reporting

PROJECT MANAGEMENT WBS: 1.5

Perform activities required to effectively manage the task order. These activities typically include, but are not limited to, the following:

- Monitoring costs and progress.
- Preparing and submitting monthly progress reports that document monthly and cumulative cost, performance status, and technical progress.
- Preparing and submitting monthly invoices in accordance with the level of detail as specified in the contract.
- Manage, track, and report status of site-specific equipment.
- Participating in meetings and preparing and submitting meeting summaries.
- Accommodating any external audit or review mechanism that EPA requires.
- Evaluating existing data, including usability, when directed by EPA.
- Coordinating with local and emergency response teams.
- Reviewing background documents as directed by EPA. Background documents include: Unilateral Administrative Order for RI/FS, Administrative Order on Consent for Removal; Removal Completion Report; Remedial Investigation Report; Draft Feasibility Study Report; U.S. Army Corps of Engineers report (when final); various position papers regarding preferences for remedial action;.
- Attending EPA-held training.

COMMUNITY INVOLVEMENT (CR) WBS: 2

Perform community involvement activities in support of EPA throughout the RI/FS oversight in accordance with the *National Oil and Hazardous Substances Pollution Contingency Plan* (NCP, 40 CFR Part 300) and the *Community Relations in Superfund – A Handbook*, (U.S. EPA, Office of Emergency and Remedial Response, OSWER Directive No. 9230.0-3C, January 1992). Community involvement tasks include, but are not limited to, the following:

- Conducting community interviews. **(not required)**
- Developing Community Involvement Plan (CIP). **(not required)**
- Providing public meeting and/or open house support: budget for (1) open house and (1) public meeting. **(not required)**
- Preparing fact sheets, notices and other informational documents.

- Providing support for proposed plan.
- Providing public hearing support. **(not required)**
- Publishing public notices in local newspapers serving the site community. **(not required)**
- Maintaining public information repository. **(not required)**
- Developing and updating site mailing lists. **(not required)**
- Providing administrative and technical support for Responsiveness Summary.
- Preparing presentation materials. **(not required)**
- Implementing other community involvement activities as identified by the site-specific CIP or EPA.
- Providing technical support to review Community Involvement deliverables and participate in public meetings. **(not required)**

Risk Identification and Assessment Oversight

FIELD INVESTIGATION/DATA ACQUISITION (FI) WBS: 3

Provide technical field oversight for the purpose of documenting PRP performance of field work. Plan for three (3) man-weeks of oversight. Maintain and provide to EPA a logbook documenting field oversight. Typical activities include, but are not limited to, the following:

- Oversight and documentation of PRP field activities.
- Collection of split samples: (6) dioxin/furan sediment samples; (3) dioxin/furan surface water samples; and (2) dioxin/furan ground water samples
- Performance of sampling/screening/testing/assessment.
- Preparation of technical oversight reports.

SAMPLE ANALYSIS (SN) WBS: 4

Analyze split samples taken to document and confirm PRP sampling results and performance. A variety of mechanisms may be used to implement this task including: field screening using mobile facilities or field portable equipment, the Contract Laboratory Program (CLP), laboratories procured under subpool or team subcontracts, the Region 6 Houston Lab, the Environmental Response Team (ERT) laboratory, or regionally procured laboratories. [NOTE: This task consists exclusively of performing sample analyses and producing analytical data. For cost estimating purposes, there should be no direct labor costs under this task - no hours should be reflected under this task, only dollars.].

ANALYTICAL SUPPORT AND DATA VALIDATION (AN) WBS: 5

Schedule, coordinate, track, and oversee sample analyses and validate analytical data. Typical activities include, but are not limited to, the following:

- Collecting, preparing, and shipping environmental samples in accordance with the Field Sampling Plan (FSP). The following types of sampling shall be required:
  - Field screening **(not required)**
  - Ground water sampling

- Surface and subsurface soil sampling **(not required)**
- Surface water and sediment sampling
- Air monitoring and sampling **(not required)**
- Biota sampling **(not required)**
- Other types of media sampling and screening **(not required)**

- Developing data quality objectives (DQO) for each sampling event; these DQOs shall be the determinative factor for assessing the success or failure of the sampling.

- Requesting, obtaining, and performing oversight of analytical services in compliance with EPA requirements.

- Coordinating with the EPA Sample Management Office (SMO), the Regional Sample Control Coordinator (RSCC), and/or the Environmental Services Division (ESD) regarding analytical support, data validation, and quality assurance issues.

- Implementing the EPA-approved laboratory quality assurance program that provides oversight of in-house and subcontracted laboratories through periodic performance evaluation sample analyses and/or on-site audits of operations and has a system of corrective actions.

- Providing sample management including chain of custody procedures, information management, sample retention, and 10-year data storage.

- Performing data validation, the process by which the quality of the data, the defensibility of the data, and the chain of custody are verified. Performing data validation in accordance with Regional guidelines.

- Reviewing data for usability for its intended purpose.

- Providing reports on data validation and usability.

DATA EVALUATION (DE) WBS: 6

Compile split sampling data and determine usability of all data collected. Prepare and submit a report summarizing split sample results. Include in the report a discussion of analytical results, a comparison of PRP sampling data with the split samples analyzed by EPA, and a discussion of any discrepancies.

RISK ASSESSMENT (RA) **(not required)** WBS: 7

Conduct oversight of PRP baseline human health and ecological risk assessments. The objective of these assessments is to characterize and quantify, where appropriate, the current and potential human health and environmental risks that would prevail if no further remedial action is taken. Risk Assessment must be done in accordance with applicable Agency guidance, directives and procedures. Provide technical reviews of the PRP potential chemicals of concern memorandum, exposure assessment memorandum, baseline human health risk assessment, screening level ecological risk assessment, ecological problem formulation and work plan, ecological risk assessment, and other documents as directed by EPA.

RI/FS Reports Oversight

TREATABILITY STUDY/PILOT TESTING (TT) WBS: 8
(EPA will provide technical direction to activate this task)

Provide technical oversight of PRP Treatability Study/Pilot Testing. Typical activities include, but are not limited to, the following:

- Reviewing PRP work plan for Treatability Study/Pilot Test.

- Split Sampling.

- Oversight of Treatability Study/Pilot Test activities.

- Preparation of Technical Memorandum.

REMEDIAL INVESTIGATION REPORT (RR) **(not required)** WBS: 9

Review the PRP's Remedial Investigation (RI) report. Perform a technical review to ensure that the report accurately establishes the site characteristics such as media contaminated, extent of contamination, and the physical boundaries of the contamination. Identify data gaps that are important for the Human Health and Ecological Risk Assessments and the Feasibility Study.

REMEDIAL ALTERNATIVES SCREENING (RS) **(not required)** WBS: 10

Review the PRP identification and screening of technologies and alternatives for technical adequacy. This review shall include the identification of technologies considered feasible but not addressed by the PRP. Review and comment whether the PRPs have followed screening procedures outlined in the NCP, 40 CFR Part 300 and applicable Agency guidance, procedures and directives.

REMEDIAL ALTERNATIVES EVALUATION (RE) **(not required)** WBS: 11

Review the PRP evaluation of remedial alternatives. Comment whether the PRPs have followed evaluation procedures as outlined in the National Contingency Plan (NCP), 40 CFR Part 300 and the Guidance for Conducting RI/FS under CERCLA (OSWER Directive 9355.3-01). Provide a technical review of the PRP evaluation.

FEASIBILITY STUDY REPORT (FS) WBS: 12

Review the PRP's Feasibility Study (FS) report to ensure the report is consistent with requirements of NCP, settlement agreement, and ARARs, and contains the following components:

- Feasibility Study Objectives.

- Remedial Objective.

- General Response Action.

- Screened Remedial Technologies.

- Remedial Alternatives.

- Detail Analysis of Remedial Alternatives.

- Summary and Conclusions.

POST RI/FS SUPPORT (PR) WBS: 13

Provide support required for preparation for a National Remedy Review Board (NRRB) package and preparation of the Proposed Plan and ROD for the site. The final recommendation contained in the ROD shall represent the opinion and recommendation of EPA not that of the contractor. Typical activities include, but are not limited to, the following:

- Attending technical meetings, public meetings, briefings, public hearings. **(not required)**

- Providing technical assistance in the preparation of a presentation to the NRRB and for preparation of a response to any comments received from the NRRB.

- Providing technical assistance in the preparation of the Proposed Plan (PP) and Record of Decision (ROD).

- Reviewing any PRP Feasibility Study (FS) Addendum.

- Providing technical assistance in the preparation of the Responsiveness Summary.

- ADMINISTRATIVE RECORD (AR) **(not required)** WBS: 14

- Produce the Administrative Record. Typical activities include, but are not limited to, the following:

- Attending meetings with EPA TOM, Site Attorney, and Administrative Record Coordinator.

- Providing assistance in compiling documents comprising of the Administrative Record File in accordance with EPA Regional guidance or other procedures as specified.

- Preparing Draft Administrative Record Index in accordance with EPA Regional guidance or other procedures as specified.

- Preparing Administrative Record Index.

- Coordinating duplication of Administrative Record.

- Assembling Administrative Record and Index.

TASK ORDER CLOSEOUT (CO) WBS: 15

Perform the necessary activities to close out the task order in accordance with contract requirements. Typical activities include but are not limited to, the following:

- Packaging and returning documents to the government.

- Duplicating/distribution/storage of files.

- Archiving files in accordance with Federal Record Center requirements.

- Preparing microfiche/microfilm/optical disk or other EPA-approved data storage technology.

- Preparing the closeout report in accordance with Regional guidance or other procedures as specified in the task order. If the final hours/budget is greater than +/- 10% of the original approved work plan/task order hours/budget, the TOCR must describe the circumstances that explain why this occurred.

Attachment 1 - Summary of Major Submittals for the RI/FS Oversight
San Jacinto River Waste Pits Superfund Site

DELIVERABLE	NO. OF COPIES	DUE DATE (calendar days)	EPA REVIEW PERIOD
RI/FS Oversight Work Plan	1EC 1HC	30 days after receipt of fixed rate task order (TO) SOW from EPA	14 days after receipt of work plan
Monthly Progress Reports	1EC 1HC	Monthly and as required in the contract	NA
Document Decisions from Meetings/Calls with TOM	1EC	Via monthly progress reports	NA
Site Management Plan (SMP) **(not required)**	1EC 1HC	21 days after approval of RI/FS oversight work plan	14 days after receipt of plan
Health and Safety Plan (HASP)	1EC 1HC	21 days after approval of RI/FS oversight work plan	14 days after receipt of plan
Sampling & Analysis Plan (SAP)	1EC 1HC	21 days after approval of RI/FS oversight work plan	14 days after receipt of plan
Quality Assurance Project Plan (QAPP)	1EC 1HC	21 days after approval of RI/FS oversight work plan	14 days after receipt of plan
Field Sampling Plan (FSP)	1EC 1HC	21 days after approval of RI/FS oversight work plan	14 days after receipt of plan
Fact Sheets	1EC 1HC	Within 10 working days after notice from EPA	5 days after receipt of fact sheet
Public Meeting Support Materials	TBD	One week prior to scheduled meeting	NA
Field Reports	1EC 1HC	2 working days after every week of field activities	5 days after receipt
Field Investigation Summary Report	1EC 6HC 1CD	30 days after receipt of the end of all field investigation data.	10 days after receipt
Data Evaluation Report	1EC 1HC	20 days after receipt of analytical results from laboratory	10 days after receipt
Comments on PRP's Draft Human Health Risk Assessment Report **(not required)**	1EC 1HC	20 days after receipt of PRP's document	14 days after receipt
Comments on PRP's Final Human Health Risk Assessment Report **(not required)**	1EC 1HC	15 days after receipt of the final HHRA report from PRP	10 days after receipt

DELIVERABLE	NO. OF COPIES	DUE DATE (calendar days)	EPA REVIEW PERIOD
Comments on Screening Level Ecological Risk Assessment **(not required)**	1EC 1HC	15 working days after receipt of PRP's document	10 days after receipt
Comments on Ecological Problem Formulation Report/Workplan **(not required)**	1EC 1HC	20 working days after receipt of PRP's document	14 days after receipt
Comments on PRP's Draft Ecological Risk Assessment Report **(not required)**	1EC 1HC	20 days after receipt of the PRP draft ERA Report	14 days after receipt
Comments on PRP's Final Ecological Risk Assessment Report **(not required)**	1EC 1HC	15 days after receipt of PRP final ERA	14 days after receipt
Comments on PRP's Treatability Study Work Plan	1EC 1HC	20 days after receipt of PRP's Treatability Study Work Plan	14 days after receipt
Field Oversight Reports	1EC 1HC	2 days after each 1 week period	2 days after receipt
Comments on PRP's Treatability Study Evaluation Report	1EC 1HC	20 days after receipt of PRP's Treatability Study and Pilot Work Plan	14 days after receipt
Comments on PRP's Draft Remedial Investigation Report **(not required)**	1EC 1HC	20 days after receipt of PRP's Draft RI Report	14 days after receipt
Comments on PRP's Final Remedial Investigation Report **(not required)**	1EC 1HC	15 days after receipt of PRP's Final FS Report	10 days after receipt
Comments on PRP's Draft Feasibility Study Report	1EC 1HC	25 days after receipt of PRP's Draft FS Report	14 days after receipt
Comments on PRP's Final Feasibility Study Report	1EC 1HC	15 days after receipt of PRP's Final FS Report	10 days after receipt
Task Order Closeout Report	1EC 1HC	30 days after final RI/FS report submitted	21 days after receipt of report
Final Costs	1EC 1HC	90 days after task order closeout	NA

EC = Electronic Copy
HC = Hard Copy
CD = Compact Disk (Electronic files greater than 4 MB will be transferred to compact disc for submittal)

Attachment 2 - Work Breakdown Structure (WBS) for Remedial Investigation/Feasibility Study (RI/FS) Oversight

Task 1 Project Planning and Support (PP)

1.1 Project planning.
- 1.1.1 Attend scoping meeting.
- 1.1.2 Conduct site visit.
- 1.1.3 Develop Work Plan and cost estimate
- 1.1.4 Negotiate Work Plan and Cost Estimate.
- 1.1.5 Provide conflict of interest disclosure.

1.2 Prepare, review, and revise the site-specific plans required to implement the RI/FS oversight at the site.
- 1.2.1 Sampling and Analysis Plan (SAP).
- 1.2.2 Health and Safety Plan (HSP)

1.3 Pollution liability insurance.

1.4 Project management.
- 1.4.1 Monitor costs and prepare periodic status reports.
- 1.4.2 Participate in meetings/communicate routinely
- 1.4.3 Manage, track, and report status of site-specific equipment.
- 1.4.4 Accommodate any external audit or review mechanism that EPA shall require.
- 1.4.5 Evaluate existing data, including usability, when directed by EPA.
- 1.4.6 Coordinate with local and emergency response teams.
- 1.4.7 Review background documents as directed by EPA.
- 1.4.8 Attend EPA-held training. **(not required)**

1.5 Project initiation and support.
- 1.5.1 Develop an EPA-approved laboratory quality assurance program.
- 1.5.2 Develop/review qualifications of the laboratory for the given analytical requirements.
- 1.5.3 Procure, manage, and provide oversight of subcontracts for analytical services.
- 1.5.4 Review background documents when directed by EPA.
- 1.5.5 Review PRP Work Plan.
- 1.5.6 Prepare Technical Memorandum and schedule for interface of Risk Assessment activities. **(not required)**
- 1.5.7 Address data transfer from PRP, schedule contingencies.

Task 2 Community Involvement (CR)

2.1 Conduct community interviews. **(not required)**

2.2 Prepare Community Involvement Plan (CIP). **(not required)**

2.3 Provide public meeting and/or open house support. **(not required)**

2.4 Prepare fact sheets, notices and other informational documents.

2.5 Provide support for proposed plan.

2.6 Provide public hearing support. **(not required)**

2.7 Publish public notices in local newspapers serving the site community. **(not required)**

2.8 Maintain public information repositories. **(not required)**

2.9 Develop and update site mailing list. **(not required)**

2.10 Provide administrative and technical support for Responsiveness Summary.

2.11 Prepare presentation materials. **(not required)**

2.12 Implementation of other Community Involvement activities as identified by the site-specific Community Involvement Plan or EPA.

2.13 Provide technical support to review Community Involvement deliverables and participate in public meetings. **(not required)**

Task 3 Field Investigation/Data Acquisition (FI)

3.1 Oversight and documentation of PRP field activities.

3.2 Collection of split samples.

3.3 Performing sampling/screening/assessment.

3.4 Preparation of Technical Oversight Reports.

Task 4 Sample Analysis (SN)

4.1 Sample analyses and production of analytical data. [NOTE: For cost estimating purposes there should be no direct labor costs under this task - no hours should be reflected under this task, only dollars.]

Task 5 Analytical Support and Data Validation (AN)

5.1 Collect, prepare, and ship environmental samples in accordance with the Field Sampling Plan (FSP).
- 5.1.1 Field screening. **(not required)**
- 5.1.2 Ground water sampling.
- 5.1.3 Surface and subsurface soil sampling. **(not required)**
- 5.1.4 Surface water and sediment sampling.
- 5.1.5 Air monitoring and sampling. **(not required)**
- 5.1.6 Biota sampling. **(not required)**
- 5.1.7 Other types of media sampling and screening. **(not required)**

5.2 Develop performance or acceptance criteria (such as data quality objectives (DQO)) for each sampling event; these criteria shall be the determinative factor for assessing the success or failure of the sampling.

5.3 Request, obtain, and perform oversight of analytical services in compliance with EPA requirements.

5.4 Coordinate with the EPA Sample Management Office (SMO), the Regional Sample Control Coordinator (RSCC), and/or the Environmental Services Division (ESD) regarding analytical support, data validation, and quality assurance issues.

5.5 Implement the EPA-approved laboratory quality assurance program that provides oversight of in-house and subcontracted laboratories through periodic performance evaluation sample analyses and/or on-site audits of operations and has a system of corrective actions.

5.6 Provide sample management including chain of custody procedures, information management, sample retention, and 10-year data storage.

5.7 Perform data validation, the process by which the quality of the data, the defensibility of the data, and the chain of custody are verified. Perform data validation in accordance with Regional guidelines.

5.8 Review data for usability for its intended purpose.

5.9 Provide reports on data validation and usability.

Task 6 Data Evaluation (DE)

6.1 Evaluate split sampling data to assess comparability with the PRP's data.

Task 7 Risk Assessment. (not required) (RA)

7.1 Oversight of a baseline human health risk assessment.

7.1.1 Review PRP's Potential Chemicals of Concern Memo and provide Technical memorandum with comments.

7.1.2 Review PRP's Exposure Assessment Memo and provide Technical memorandum with comments.

7.1.3 Review PRP's draft Human Health Risk Assessment Report and provide Technical memorandum with comments.

7.1.4 Review PRP's final Human health Risk Assessment Report and provide Technical memorandum with comments.

7.2 Oversight of a baseline ecological risk assessment.

7.2.1 Review PRP's Screening Level Ecological Risk Assessment and provide Technical memorandum with comments.

7.2.2 Review PRP's Ecological Problem Formulation Report/Workplan and provide Technical memorandum with comments.

7.2.3 Review PRP's draft Ecological Risk Assessment Report and provide Technical memorandum with comments.

7.2.4 Review PRP's final Ecological Risk Assessment Report and provide Technical memorandum with comments.

7.3 Prepare draft risk assessment reports.

7.4 Prepare final risk assessment reports.

Task 8 Treatability Study/Pilot Testing (EPA will provide technical direction to activate this task) (TT)

8.1 Review PRP work plan for Treatability Study/Pilot Test and provide Technical memorandum with comments.

8.2 Conduct split sampling.

8.3 Oversight of Treatability Study/Pilot Test activities.

8.4 Preparation of Technical Memorandum.

8.5 Review PRP's Treatability Study Evaluation Report and provide Technical memorandum with comments.

Task 9 Remedial Investigation Report (not required) (RR)

9.1 Review PRP's draft RI report(s) and provide Technical memorandum with comments.
9.1.1 Review PRP's Nature & Extent Data Report and provide Technical memorandum with comments.
9.1.2 Review PRP's Preliminary Site Characterization Report and provide Technical memorandum with comments.
9.2 Review PRP's final RI report(s) and provide Technical memorandum with comments.

Task 10 Remedial Alternatives Screening (not required) (RS)

10.1 Review the PRP identification and screening of technologies and alternatives for technical adequacy and provide Technical memorandum with comments.

Task 11 Remedial Alternatives Evaluation (not required) (RE)

11.1 Provide a technical review of the PRP evaluation of remedial alternatives.
11.2 Comment whether the PRPs have followed required evaluation procedures.

Task 12 Feasibility Study Report (FS)

12.1 Review PRP's draft Feasibility Study report(s) and prepare technical memorandum with review comments.
12.2 Review PRP's final Feasibility Study report(s) and prepare technical memorandum with review comments.

Task 13 Post RI/FS Support (PR)

13.1 Attend technical meetings, public meetings, briefings, public hearings. (not required)
13.2 Provide technical assistance in the preparation of the Proposed Plan and Record of Decision (ROD).
13.2.1 Provide technical support in the preparation for and response to the National Remedy Review Board.
13.3 Review PRP Feasibility Study (FS) Addendum.
13.4 Provide technical assistance in the preparation of the Responsiveness Summary.

Task 14 Administrative Record (not required) (AR)

14.1 Attend meeting with EPA TOM, Site Attorney, and Administrative Record Coordinator.
14.2 Provide assistance in compiling documents comprising of the Administrative Record File in accordance with EPA Regional guidance or other procedures as specified.
14.3 Prepare Draft Administrative Record Index in accordance with EPA regional guidance or other procedures as specified.
14.4 Prepare Administrative Record Index.
14.5 Coordinate duplication of Administrative Record.
14.6 Assemble Administrative Record and Index.

Task 15 Task Order Closeout (CO)

15.1 Package and return documents to the government.
15.2 Duplicate, distribute, and store files.
15.3 Archive files in accordance with Federal Record Center requirements.
15.4 Produce microfiche/microfilm/optical disk or other EPA-approved storage format.
15.5 Prepare the Task Order Closeout Report (TOCR).

Attachment 3 - Regulations and Guidance Documents

The following list, although not comprehensive, consists of many of the regulations and guidance documents that apply to the RI/FS process:

1. American National Standards Practices for Respiratory Protection. American National Standards Institute Z88.2-1980, March 11, 1981.
2. ARCS Construction Contract Modification Procedures September 89, OERR Directive 9355.5-01/FS.
3. CERCLA Compliance with Other Laws Manual, Two Volumes, U.S. EPA, Office of Emergency and Remedial Response, August 1988 (DRAFT), OSWER Directive No. 9234.1-01 and -02.
4. Community Relations in Superfund C A Handbook, U.S. EPA, Office of Emergency and Remedial Response, January 1992, OSWER Directive No. 9230.0-3C.
5. A Compendium of Superfund Field Operations Methods, Two Volumes, U.S. EPA, Office of Emergency and Remedial Response, EPA/540/P-87/001a, August 1987, OSWER Directive No. 9355.0-14.
6. Construction Quality Assurance for Hazardous Waste Land Disposal Facilities, U.S. EPA, Office of Solid Waste and Emergency Response, October 1986, OSWER Directive No. 9472.003.
7. Contractor Requirements for the Control and Security of RCRA Confidential Business Information, March 1984.
8. Data Quality Objectives for Remedial Response Activities, U.S. EPA, Office of Emergency and Remedial Response and Office of Waste Programs Enforcement, EPA/540/G-87/003, March 1987, OSWER Directive No. 9335.0-7B.
9. Engineering Support Branch Standard Operating Procedures and Quality Assurance Manual, U.S. EPA Region IV, Environmental Services Division, April 1, 1986 (revised periodically).
10. EPA NEIC Policies and Procedures Manual, EPA-330/9-78-001-R, May 1978, revised November 1984.
11. Federal Acquisition Regulation, Washington, DC: U.S. Government Printing Office (revised periodically).
12. Guidance for Conducting Remedial Investigations and Feasibility Studies Under CERCLA, Interim Final, U.S. EPA, Office of Emergency and Remedial Response, October 1988, OSWER Directive NO. 9355.3-01.
13. Guidance on EPA Oversight of Remedial Designs and Remedial Actions Performed by Potential Responsible Parties, U.S. EPA Office of Emergency and Remedial Response, EPA/540/G-90/001, April 1990.
14. Guidance on Expediting Remedial Design and Remedial Actions, EPA/540/G-90/006, August 1990.
15. Guidance on Remedial Actions for Contaminated Ground Water at Superfund Sites, U.S. EPA Office of Emergency and Remedial Response (DRAFT), OSWER Directive No. 9283.1-2.
16. Guide for Conducting Treatability Studies Under CERCLA, U.S. EPA, Office of Emergency and Remedial Response, Prepublication version.
17. Guide to Management of Investigation-Derived Wastes, U.S. EPA, Office of Solid Waste and Emergency Response, Publication 9345.3-03FS, January 1992.
18. Guidelines and Specifications for Preparing Quality Assurance Project Plans, U.S. EPA, Office of Research and Development, Cincinnati, OH, QAMS-004/80, December 29, 1980.
19. Health and Safety Requirements of Employees Employed in Field Activities, U.S. EPA, Office of Emergency and Remedial Response, July 12, 1982, EPA Order No. 1440.2.
20. Interim Guidance on Compliance with Applicable of Relevant and Appropriate Requirements, U.S. EPA, Office of Emergency and Remedial Response, July 9, 1987, OSWER Directive No. 9234.0-05.
21. Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans, U.S. EPA, Office of Emergency and Remedial Response, QAMS-005/80, December 1980.
22. Methods for Evaluating the Attainment of Cleanup Standards: Vol. 1, Soils and Solid Media, February 1989, EPA 23/02-89-042; vol. 2, Ground water (Jul 1992).
23. National Oil and Hazardous Substances Pollution Contingency Plan; Final Rule, Federal Register 40 CFR Part 300, March 8, 1990.
24. NIOSH Manual of Analytical Methods, 2nd edition. Volumes I-VII for the 3rd edition, Volumes I and II, National Institute of Occupational Safety and Health.
25. Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, National Institute of Occupational Safety and Health/Occupational Health and Safety Administration/United States Coast Guard/Environmental Protection Agency, October 1985.
26. Permits and Permit Equivalency Processes for CERCLA On-Site Response Actions, February 19, 1992, OSWER Directive 9355.7-03.
27. Procedure for Planning and Implementing Off-Site Response Actions, Federal Register, Volume 50, Number 214, November 1985, pages 45933-45937.
28. Procedures for Completion and Deletion of NPL Sites, U.S. EPA, Office of Emergency and Remedial

Response, April 1989, OSWER Directive No. 9320.2-3A.
29. Quality in the Constructed Project: A Guideline for Owners, Designers and Constructors, Volume 1, Preliminary Edition for Trial Use and Comment, American Society of Civil Engineers, May 1988.
30. Remedial Design and Remedial Action Handbook, U.S. EPA, Office of Emergency and Remedial Response, June 1995, OSWER Directive No. 9355.5-22.
31. Revision of Policy Regarding Superfund Project Assignments, OSWER Directive No. 9242.3-08, December 10, 1991. [Guidance, p. 2-2]
32. Scoping the Remedial Design (Fact Sheet), February 1995, OSWER Publ. 9355-5-21 FS.
33. Standard Operating Safety Guides, U.S. EPA, Office of Emergency and Remedial Response, November 1984.
34. Standards for the Construction Industry, Code of Federal Regulations, Title 29, Part 1926, Occupational Health and Safety Administration.
35. Standards for General Industry, Code of Federal Regulations, Title 29, Part 1910, Occupational Health and Safety Administration.
36. Structure and Components of 5-Year Reviews, OSWER Directive No. 9355.7-02, May 23, 1991. [Guidance, p. 3-5]
37. Superfund Guidance on EPA Oversight of Remedial Designs and Remedial Actions Performed by Potentially Responsible Parties, April 1990, EPA/540/G-90/001.
38. Superfund Remedial Design and Remedial Action Guidance, U.S. EPA, Office of Emergency and Remedial Response, June 1986, OSWER Directive No. 9355.0-4A.
39. Superfund Response Action Contracts (Fact Sheet), May 1993, OSWER Publ. 9242.2-08FS.
40. TLVs-Threshold Limit Values and Biological Exposure Indices for 1987-88, American Conference of Governmental Industrial Hygienists.
41. Treatability Studies Under CERCLA, Final. U.S. EPA, Office of Solid Waste and Emergency Response, EPA/540/R-92/071a, October 1992.
42. USEPA Contract Laboratory Program Statement of Work for Inorganic Analysis, U.S. EPA, Office of Emergency and Remedial Response, July 1988.
43. USEPA Contract Laboratory Program Statement of Work for Organic Analysis, U.S. EPA, Office of Emergency and Remedial Response, February 1988.
44. User's Guide to the EPA Contract Laboratory Program, U.S. EPA, Sample Management Office, August 1982.
45. Value Engineering (Fact Sheet), U.S. EPA, Office of Solid Waste and Emergency Response, Publication 9355.5-03FS, May 1990.
46. Presumptive Remedies: Policy and Procedures, U.S. EPA, Office of Solid Waste and Emergency Response, Directive 9355.0-47FS, EPA 540-F-93-047, PB 93-963345, September, 1993.
47. Presumptive Remedies for Soils, Sediments, and Sludges at Wood Treater Sites, U.S. EPA, Office of Solid Waste and Emergency Response, Directive 9200.5-162, EPA/540/R-95/128, PB 95-963410, November, 1995.
48. Presumptive Response Strategy and Ex-Situ Treatment Technologies for Contaminated Groundwater at CERCLA Sites, U.S. EPA, Office of Solid Waste and Emergency Response, Directive 9283.1-12, EPA 5401R/023, June, 1996.
49. Presumptive Response Strategy and Ex-Situ Treatment Technologies for Contaminated Groundwater at CERCLA Sites, U.S. EPA, Office of Solid Waste and Emergency Response, Directive 9283.1-12, EPA 5401R/023, June, 1996.

Attachment 4 - Transmittal of Documents for Acceptance by EPA

TRANSMITTAL OF DOCUMENTS FOR ACCEPTANCE BY EPA		DATE:	TRANSMITTAL NO.
TO:	FROM:		G New Transmittal G Re-submittal of Transmittal No. _____
SUBTASK NO.	DELIVERABLE	NO. OF COPIES	REMARKS
ACCEPTANCE ACTION			
DOCUMENTS FOUND ACCEPTABLE (LIST BY SUBTASK NO.)	NAME/TITLE/SIGNATURE OF REVIEWER DATE		

Attachment 5 - Transmittal Register

TRANSMITTAL REGISTER								
PROJECT TITLE AND LOCATION				CONTRACT NO.			TASK ORDER NO.	
Subtask No.	DELIVERABLE	No. of Copies	Due Date	Transmittal No.	Date Received	Date Comments Sent to Contractor	EPA Acceptance Date	REMARKS